

A bronzy black stripe, showing slightly greenish in some lights, covers segments 3-6 above (terminal segments wanting). Wings hyaline, with 11 postcubital nervures; pterostigma pale yellow, very oblique and pointed at the ends, and covering less than one cell.

Kandy (August 1888).

Allied to *Stenobasis occipitalis*, Selys, from New Guinea; but in *A. ceylonica* the head is concolorous, and consequently there are no postocular spots, a character which I regard as purely artificial. *Archibasis* (*Stenobasis*, Selys) appears to differ from *Teinobasis* (*Telebasis*, p., Selys) in the position of the basal postcostal nervure. In *Archibasis* it is placed about halfway between the level of the two antecubital nervures, whereas in *Teinobasis* it is placed close to the level of the second.

13. LESTES ELATUS.

Lestes elata, Selys, Bull. Acad. Belg. xiii. p. 319 (1862).

Pundaloya.

14. LESTES GRACILIS (?).

Lestes gracilis, Selys, Bull. Acad. Belg. xxiii. p. 327 (1862).

A pair of *Lestes* in Mr. Green's collection from Pundaloya agree fairly well with De Selys's description of this species, but they present no trace of bluish colouring, and the male has only 9 postcubital nervures on the anterior wings; the female has 12. The genus *Lestes* is well represented in Ceylon; and I do not feel justified in describing Mr. Green's specimens as new in the absence of others of the same section from the island.

I have passed over two other Dragonflies in Mr. Green's collection, allied to *Agrionoptera* and *Cænagrion* respectively, pending the acquisition of a larger series.

EXPLANATION OF PLATE XX.

Fig. 1. *Orthetrum carnaticum*, Fabr., p. 204.

2. *Neurobasis apicalis*, sp. n., neuration, p. 204.

2 a. ———, anal appendages.

3. *Platysticta greeni*, sp. n., p. 204.

3 a. ———, anal appendages.

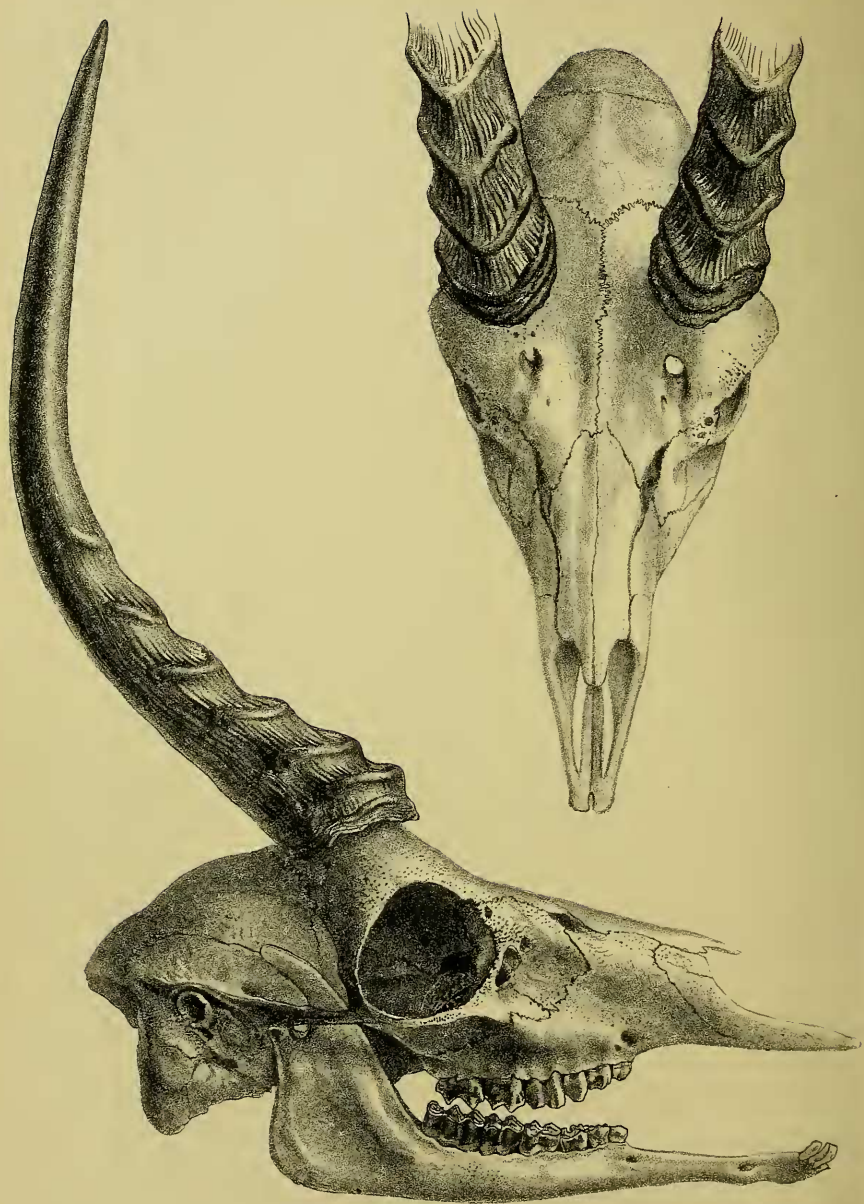
4. *Archibasis ceylonica*, sp. n., p. 205.

4. On some Antelopes collected in Somali-land by Mr. T. W. H. Clarke. By OLDFIELD THOMAS.

[Received March 17, 1891.]

(Plates XXI. & XXII.)

By the kindness of Messrs. Rowland Ward & Co., the well-known taxidermists of Piccadilly, I have been entrusted with the examination of the fine series of Antelope heads and horns recently collected in Somali-land by Mr. T. W. H. Clarke. These Antelopes prove to



$\frac{1}{2}$



J. Smit del et lith.

$\frac{1}{3}$

Mintern Bros. imp.

AMMODORCAS CLARKEI.

be of so much interest zoologically, one of them representing not only a new species, and that a most beautiful one, but even a new genus, that I have thought it well to go through the whole collection, to record the length of the horns in all the specimens, such records of their local development being often very useful, and to make such notes upon them as appeared necessary.

The species represented in the collection are 8 in number, and, with the exception of the new one, *Ammodorcas clarkei*, have all been obtained in Somali-land before, although they have not in all cases been recorded.

Besides the Antelopes, Mr. Clarke obtained in Somali-land a skin of *Proteles cristatus*, Sparrm., a species, so far as I am aware, not hitherto recorded north of Angola.

1. ORYX BEISA, Rüpp.

♂. L.¹ 781 millim. C.² 158.

2. LITHOCRANIUS³ WALLERI, Brooke.

♂. L. 336. C. 140. Rings 27.

♂. L. 311. C. 133. Rings —.

♂. L. 313. C. 130. Rings 31.

As usual with Somali collections, several Gerenook Gazelles were obtained. This remarkable species has been made the type of a distinct genus by Dr. Kohl, and I believe rightly, for not only has it a very different skull from that of *Gazella*, but its external form and its habits are both quite unlike those of any member of the genus.

3. AMMODORCAS CLARKEI⁴, g. et sp. n. (Plates XXI. & XXII.)

a. L.⁵ (round curve posteriorly) 286; do. anteriorly 279; base to tip in a straight line 222. C. 120; tip to tip 114. Rings 10.

b. L. (round curve posteriorly) 267; do. anteriorly 254; base to tip in a straight line 222. C. 114; tip to tip 89. Rings 8.

c. L. (round curve posteriorly) 245; do. anteriorly 245; base to tip in a straight line 221. C. 112; tip to tip 134. Rings 7.

This most remarkable animal combines the horns of a Reed-buck (*Cervicapra*) with the essential characters of a Gazelle, showing a special relationship to that most aberrant Gazelle the Gerenook (*Lithocranius walleri*), and appears certainly to be worthy of generic distinction. On the first arrival of the specimens, before the skulls were cleaned, and before Mr. Sclater had received from Mr. Swayne the face-skins mentioned below, the animal was naturally supposed to be a Reed-buck from the character of its horns, little likely as it

¹ Length round curves anteriorly.

² Circumference at base.

³ "*Lithocranius*," Kohl, Ann. Mus. Wien, i. p. 82 (1886).

⁴ Preliminary description of the species given, under the erroneous generic name of *Cervicapra*, Ann. Mag. N. H. (6) vii. p. 304 (March 1891). See also Mr. Sclater's remarks, above, p. 197.

⁵ For the benefit of sportsmen and others not having metric measures available, it may be noted that the five measurements of the horns of *a*, in English inches, are $11\frac{1}{2}$, $11\cdot0$, $8\frac{3}{4}$, $4\frac{3}{4}$, and $4\frac{1}{2}$ respectively.

appeared that a Reed-buck would occur in the dry sandy plateau of Somali-land. Now, however, that better material is available, I am able to draw up a fairly complete account of the more essential characters of this most beautiful Gazelle, of the discovery of which Mr. Clarke, both as sportsman and naturalist, has so much reason to be proud.

Muzzle, character of face-markings, and presence of anteorbital glands as in *Gazella*. General form (as described by Mr. Clarke, see below) and skull more as in *Lithocranius*. Horns in curve and general appearance as in *Cervicapra*.

Coloration of face, using Sir Victor Brooke's phraseology¹, as follows:—Central facial band deep rich chestnut-rufous, becoming duller towards the bases of the horns; light facial streaks pure white, very prominent and sharply defined, extending the whole length of the head from the bases of the ears to the corners of the nostrils, somewhat duller and more indistinct at their extremities, but broadening in the middle to encircle the eyes; dark facial streak present but not strongly marked. Cheeks and sides of neck pale fawn; throat white. Crown between and behind horns brown or grizzled fawn, the latter condition occurring in the older of Mr. Swayne's two head-skins; a marked whorl of hairs situated between the ears. Back of ears short-haired, dark fawn basally, gradually darkening to black terminally; insides white-haired, but with black tips.

Horns evenly curved upwards and forwards, the basal halves running backwards and the terminal halves nearly vertically upwards, the main curvature being therefore exactly in the opposite direction to that found in *Gazella* and *Lithocranius*. The horns themselves slender, their smooth unridged portion very long, the first indistinct ridge occurring about 5 inches from the tip. Ridges widely separate, strongly defined anteriorly, but becoming abruptly obsolete about halfway round, the sides and back showing scarcely a trace of them; their number amounting to 10 in the oldest specimen available, a number probably but seldom much exceeded, judging by *b* and *c*, which, although fully adult, have only 8 and 7 ridges respectively. Of Mr. Swayne's two specimens one has 8 and the other 5 ridges.

Skull diverging from that of *Gazella* and approaching that of *Lithocranius* by being unusually low, long in the occipital region, with a comparatively straight cranio-facial angle, with very small bullæ, with the postero-internal wall of the suborbital fossæ imperfect, and with a remarkably small and slender lower jaw. On the other hand, it differs from the same skull by being peculiar to a less extent in all these points, by the greater development of the premaxillæ posteriorly, where they have a broad articulation with the nasals, by the larger nasals and smaller interparietal, and by the larger and more powerful teeth, which are absolutely larger in the smaller animal.

In its skull-characters, therefore, *Ammodorcas* stands just intermediate between *Gazella* and *Lithocranius*; in its muzzle and in the

¹ P. Z. S. 1873, p. 536.

characters of its markings it agrees fairly with both, but in general form with the latter only, that animal, like it, being peculiar for its extraordinarily long neck; and, finally, in the curvature of its horns it differs absolutely from both, as also from any of the other Gazelline genera, while it agrees with a group so different from it in all essential respects that the resemblance must evidently be an accidental one and not indicative of any relationship. Presumably the whole of the horn of this species is homologous with the terminal three or four inches of the Gerenook's horns; that is to say, with the upwardly curved part, the greater part of the horn having become obsolete while the upwardly curved tips have attained to a remarkable proportionate development.

The following are the dimensions of the skull of specimen *c*:—

Length, occiput to gnathion, 210 millim., tip of nasals to occiput 176, greatest breadth 95; height, crown to angle of lower jaw 94; nasals, length 67, breadth 26; interparietal, length 24, breadth 39; height of orbital opening 35, gnathion to front of anterior premolar 63; length of molar series 53. Lower jaw, condyle to front of symphysis 153; height from coronoid process to angle 70; height of ramus at centre of $\overline{m}^2$ 15.4, at posterior end of symphysis 9.

In a letter addressed by Mr. Clarke to Mr. Rowland Ward, the following notes on the appearance and habits of this species are given: "The Somali name for these Antelopes is 'Debo Tag.' I shot them in the new country I went into, and did not see them in any other part. They have a very long thin tail, and, when they run, throw it up and over towards the neck. The neck is very long and thrown back towards the tail, so that the two look as if they would touch each other."

Shortly after the arrival of Mr. Clarke's specimens, Mr. Selater received from Mr. Swayne two scalps of this species which he had bought in Berbera, and these scalps Mr. Selater has most kindly handed over to me for the purposes of the present paper. Fortunately the muzzle of one of them has been preserved, so that I have been able to make out its strictly Gazelline character, and the description of the colours above given has also been taken from these specimens.

It is much to be hoped that more specimens of this beautiful Gazelle will soon be obtained, and that we may thereby gain a full knowledge of its range, habits, and natural affinities¹.

¹ P.S. (May 14th).—Mr. Clarke has favoured me with the following notes on this new Gazelle:—

"I saw this Gazelle for the first time on December 17th, 1890, about three hours from 'Bairwell,' or about one day from 'Buroa Well, Habbergerhagi's country,' and afterwards on the road all the way into the Marehan district, 8° N. 47° E. I killed a male, and found one of the horns broken off close to the skull, which had apparently been done a year or so ago.

"They are very graceful animals, with a long neck and well-proportioned head and horns; the body is rather slender, but considerably larger than in *Gazella spekkii*, about the size of a female *G. walleri*. The legs are long and slender; the hoofs are not so triangular as those of *G. spekkii*, and small for the size of the animal.

Mr. Clarke informs me that the female of *Ammodorcas* is without horns, a character which allies it still more closely with *Lithocranius*, and removes it from the typical Gazelles. The exact locality at which he obtained the specimens is about a day and a half from the Buroa Wells, Central Somali, about 100 miles south of Berbera.

4. GAZELLA SÆMMERRINGI, Cr.

♂. L. 449. C. 133. Rings 22.

♂. L. 450. C. 127. Rings 22.

♂. L. 425. C. 130. Rings 21.

♀. L. 406. C. 75.

As noted by Mr. Lort Phillips¹, the Sæmmerring's Gazelles of Somali are larger and have longer horns than those found in Abyssinia. Mr. Clarke's female horns are especially noteworthy for their length and slenderness.

5. GAZELLA SPEKEI, Blyth.

Gazella spekei, Blyth, J. A. S. B. xxiv. p. 296 (1856) (description); id. Cat. Mamm. Mus. As. Soc. p. 172 (1863) (name given); Blauf. Zool. Abyss. p. 261, pl. i. fig. 5 (1870); Kohl, Ann. Mus. Wien, i. p. 77, pls. iii., iv. (animal, skull, and horns) (1886).

Gazella, sp. (Flabby-nosed Gazelle), Lort Phillips, P. Z. S. 1885, p. 932.

Gazella naso, Sclat. P. Z. S. 1886, p. 504, pl. li. (head).

♂. L. 292. C. 107. Rings 21.

"They have small ears and a long upper lip, just like those of *G. walleri* or a Giraffe. The horns are of the shape of a sickle, and less than 12 inches in length, the longest, out of the 11 males killed, measuring 11 inches. The tail, from what I remember, is about 12 or 13 inches in length, very thin, and thinly covered with black hair about one inch long.

"The colour of the body is like that of the neck, of a kind of pink fawn, but the belly is whitish and the tail black.

"The face resembles that of *G. walleri*, only *G. walleri* has no white from the eye.

"When running, or rather jumping, they look very peculiar; their long neck and head thrown back and the tail thrown forward, and there appears to be only a foot between head and tail.

"The country they are mostly found in is of low thorn-bush and sandy; they do not seem to like the big bushes, though at times they are found there. In this respect they differ from *G. walleri*, this species liking many bushes to go and rest in.

"The new Gazelle is to be found one day's journey from Buroa Wells, at an elevation of 3100 feet, to the Marchan country (800 feet), general course about S. by E., and is more numerous than any other kind of game, excepting *G. sæmmerringi*; but these are found only in the open country.

"Several times I saw the new Gazelle and *G. walleri* feeding together, but I never saw more than eight in a bunch, and on this occasion there was a male *G. sæmmerringi* with them.

"They have great vitality; this I put down to the large quantity of blood they have.

"The female resembles the male, but is without horns.

"Somali name 'Debo Tag,' which means 'carries tail high.'"

¹ P. Z. S. 1885, p. 932.

♂. L. 273. C. 102. Rings 19.

♂. L. 272. C. 98. Rings 17.

♀. L. 241. C. 70.

Mr. Clarke's specimens prove the fact, unsuspected or forgotten since 1856, that the original *G. spekei* of Blyth is the Flabby-nosed Gazelle of the Somali plateau, and not the smooth-nosed one of the lowlands near Berbera, to which the name has been applied by Mr. Lort Phillips. The smooth-nosed one is that described by Dr. Kohl as *G. pelzelni* (*loc. infra cit.*), the horns of the latter brought by Mr. Clarke agreeing absolutely with one of the specimens of "*G. spekei*" obtained by Mr. Lort Phillips.

Without entering into details, the identity of "*G. naso*" with *G. spekei* is readily shown by the following extract from Lieut. (afterwards Sir Richard) Burton's notes on *G. spekei* given in Blyth's description:—"as you may observe that there is an elevation of loose replicated skin upon the nose."

The mistake has arisen not unnaturally by supposing that at Berbera Speke got the Berbera Gazelle (*G. pelzelni*), and there is little in Blyth's own description and nothing in Mr. Blanford's figures to have aroused a suspicion of the true state of the case.

The horns of *G. spekei* are readily distinguishable from those of *G. pelzelni* by their much greater curvature, those of the latter species being almost as straight as those of *G. thomsoni*, Günth., to which in fact *G. pelzelni* is most nearly allied. The black nose-patch of *G. spekei* affords also a ready mark of distinction from *G. pelzelni*, in which the upper surface of the muzzle is quite uniformly coloured.

Mr. Clarke says:—"The Gazelle heads were all shot beyond Ragar and have the big nose. The straight-horned one [*G. pelzelni*] is the common one round Berbera, but when once you get on the plateau, the big-nosed ones take their place. The two species are very much alike in the body, but the horns of the Berbera one are straight and it has no loose nose."

6. GAZELLA PELZELNI, Kohl.

Gazella spekei, Lort Phillips, P. Z. S. 1885, p. 931 (*nec* Blyth).

G. pelzelni, Kohl, Ann. Mus. Wien, i. p. 76, pls. iii. & iv. (animal, skull, and horns) (1886).

a. ♂. L. 267. C. 95. Rings 17.

b. ♂. L. 297. C. 86. Rings 19.

Specimen *b* has nearly an inch of rough but un-ringed horn at the base below the large rings, showing that 19 rings are about as many as this species ever develops.

7. OREOTRAGUS SALTATOR, Bodd.

♂. L. 95.

8. NEOTRAGUS SALTIANUS, De Blainv.

♂. Horns, l. 70.

All the North Somali *Neotragi* seem to belong to this, the Abyssinian species, and not to *N. kirki*, Günth., the East-African form,

which, however, Mr. Lort Phillips obtained in Central Somali-land¹. The same gentleman, and also Herr Menges, collected several specimens of *N. saltianus* in the neighbourhood of Berbera, and these are now in the British Museum. It may be noted, for the benefit of sportsmen, that besides the decided dental and osteological distinction described by Dr. Günther², the horns of *N. saltianus* may be distinguished from those of *N. kirki* by being flattened along their inner side and therefore triangular in section, while those of the latter species are rounded and therefore circular in section.

April 7, 1891.

F. Du Cane Godman, Esq., F.R.S., Vice-President, in the Chair.

The Secretary read the following report on the additions to the Society's Menagerie during the month of March 1891 :—

The total number of registered additions to the Society's Menagerie during the month of March was 83, of which 35 were by presentation, 3 by birth, 39 by purchase, and 6 on deposit. The total number of departures during the same period, by death and removals, was 96.

Amongst the additions I may invite special attention to the following :—

1. A young example of the Ounce or Snow-Leopard (*Felis uncia*), purchased of Mr. W. Jamrach, March 6th, and believed to have been obtained in Bhotan. I have already (see above, p. 197) spoken of the acquisition of this most interesting animal, an example of the only species of the larger Cats which we have not previously been able to exhibit in the Gardens.

2. A small-clawed Otter (*Lutra leptonyx*) from India, acquired by purchase March 16th, being the second specimen of this Otter which has been obtained by the Society³.

3. A Lhuys' Impeyan Pheasant (*Lophophorus lhuysi*), male. A fine example of this rare Pheasant from Szechuen, Western China, obtained by Mr. A. G. Pratt during his recent visit to that country, and purchased of him on the 18th March. This is the first example of the species received in Europe.

I may also remark that among the deaths registered in the Society's Gardens during the month of March was that of a European Crane (*Grus cinerea*), which was acquired by purchase on the 13th May 1848, and had thus lived nearly forty-three years in captivity.

¹ Cf. Phillips, P. Z. S. 1885, p. 932, and Selater, P. Z. S. 1886, p. 504.

² P. Z. S. 1880, p. 17.

³ Cf. P. Z. S. 1888, p. 564.